Summary

Two workers were involved in a high voltage accident. A 24- year-old worker was fatally injured and another employee was hospitalized with electrical burns.

The victims were part of a four person electrical line crew, assigned to work on an electrical vault. The workers had tested and grounded all the old cables but not the three new cables located in the bottom of the electrical vault. The victims removed all of the old high voltage cables and modules, and had begun to install new high voltage modules. During this procedure, the employees discovered that one of the primary 7,200 volt underground elbows needed to be rotated 180 degrees in order to be installed on the new high voltage module.

While in the process of rotating the elbow, the victims made contact with an energized 7,200 volt primary cable probe inside the elbow. One of the employees was blown clear of the energized 7,200 volt elbow, but the other employee was fatally electrocuted and slumped over in the vault.

The primary underground cables were found to be miss-numbered. The 7,200 volt primary underground cables were never tested and grounded. The crew assumed that new primary underground wires were numbered correctly and that the cable numbers went to the correct underground vault location. The three phase transformer bank in vault was never checked to see if it was reenergized after the scheduled power outage.

Recommendations

- Identify, isolate, test and ground all cables before starting work on them.
- Insure that all underground cables are numbered correctly and that they go the right vault location.
- Verify status of the transformer after scheduled power outage.